



Title: Device and Method Employing Shape Memory Alloy Patent No.: 6,916,159 B2_ Issue Date: July 12, 2005 Application No.: 10/683,659 Filing Date: October 9, 2003 Examiner: Timothy P. Solak Group Art Unit: 3746 Docket No.: THER.008US1 Conf. No.: 1810 Certificate of Mailing Under 37 CFR 1.8 I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class/brail in an expectage affected to. Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 Hours Attn: Certificate of Correction Branch Of The Patent Issue Division COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, VA 22313-1450 REQUEST FOR ENTRY OF CERTIFICATE OF CORRECTION Sir: Please enter the enclosed Certificate of Correction (PTO Form 1050) in the above patent. The error sought to be corrected was made by the Patent and Trademark Office. Thus, no fee is required for the Certificate of Correction pursuant to 37 CFR §1.322.	<u>IN 11</u>	HE UNITED STATES PA	TENT AND TRADEM.	ARK OFFICE
Patent No.: 6,916,159 82 Issue Date: July 12, 2005 Application No.: 10/683,659 Filing Date: October 9, 2003 Examiner: Timothy P. Solak Group Art Unit: 3746 Docket No.: THER.008US1 Conf. No.: 1810 Certificate of Mailing Under 37 CFR 1.8 I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class final in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 Group Commissioner for Patents, P.O. Box 1450, Alexandria of Correction Branch Of The Patent Issue Division COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, VA 22313-1450 REQUEST FOR ENTRY OF CERTIFICATE OF CORRECTION Sir: Please enter the enclosed Certificate of Correction (PTO Form 1050) in the above patent. The error sought to be corrected was made by the Patent and Trademark Office. Thus, no fee is required for the Certificate of Correction pursuant to 37 CFR §1.322. Applicant(s) (at least in part). See next section for explanation. The	Applicant(s):	Rush et al.		
Application No.: 10/683,659 Filing Date: October 9, 2003 Examiner: Timothy P. Solak Group Art Unit: 3746 Docket No.: THER.008US1 Conf. No.: 1810 Certificate of Mailing Under 37 CFR 1.8 Thereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class final in an envelope addressed to: Commissioner for Patients, P.O. Box 1450, Alexandria, VA 22313-153 fon 12-2-10-5 Signature Attn: Certificate of Correction Branch Of The Patent Issue Division COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, VA 22313-1450 REQUEST FOR ENTRY OF CERTIFICATE OF CORRECTION Sir: Please enter the enclosed Certificate of Correction (PTO Form 1050) in the above patent. The error sought to be corrected was made by the Patent and Trademark Office. Thus, no fee is required for the Certificate of Correction pursuant to 37 CFR §1.322. Applicant(s) (at least in part). See next section for explanation. The	Title:	Device and Method Emp	ploying Shape Memory	Alloy
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Applicant(s) (at least in part). See next section for explanation. The	★ the	Patent and Trademark Off	ice. Thus, no fee is req	uired for the Certificate of
	Correction pursua	nt to 37 CFR §1.322.		
appropriate fee under 37 CFR §1.323 has been authorized below.	☐ Ap	plicant(s) (at least in pa	art). See next section	n for explanation. The
	appropriate fee un	der 37 CFR §1.323 has bee	en authorized below.	•

Patent No.: 6,916,159

Please correct the following error made by the USPTO:

On the front page, under the heading "Related U.S. Application Data," please delete the phrase "provisional application No. 60/424,414, filed on Nov. 6, 2002,".

An Amendment to correct the Related U.S. Application Data was filed with the USPTO on December 2, 2004. Copies of pertinent pages of the Amendment and the postcard stamped received by the USPTO is attached.

Please direct all inquiries concerning this request to the undersigned attorney at (415) 318-1160.

Respectfully submitted,

K. Alison de Runtz Reg. No. 37,119

Parsons Hsue & de Runtz LLP 655 Montgomery Street, Suite 1800 San Francisco, CA 94111 (415) 318-1160 (415) 693-0194 (Fax)

MAIL STOP AMENDMENT COMMISSIONER FOR PATENTS P.O. BOX 1450

ALEXANDRIA, VA 22313-1450

Applicants: Title:

Rush et al.

Pumping Device, System and Method Employing a Shape Memory Alloy (As

Application ... filling Date: fonf. No.: tty Docke Application No.:

Amended) 10/683,659 10/9/03

tty Docket No.:

1810 THER.008USI

ENCLOSED:

This Return Receipt Postcard

This Transmittal Letter (in duplicate - 1 page)

3. Amendment and Attachments (22 pages)

Petition for Extension of Time (Two-Month) (2 pages)

Supplemental Information Disclosure Statement (2 pages)

PTO Form 1449 (1 page)

Check for \$1078.00

ADR/edb

Mailing Date: Due Date:

12/2/04 10/2/04



P.O. Box 1450

655 Montgomery Street, Suite 1800 San Francisco, Ca 94111 TEL 415.318.1160 FAX 415.693.0194

December 2, 2004

ail Stop Amendment Commissioner For Patents

Alexandria, VA 22313-1450

Applicant(s):

Title:

Pumping Device, System and Method Employing a Shape Memory Alloy

(As Amended)

Application No.:

10/683,659

Filing Date:

October 9, 2003

Examiner:

Timothy P. Solak

Group Art Unit:

3762

Docket No.:

THER.008US1

Conf. No.:

1810

Dear Sir:

Transmitted herewith are the following documents in the above-identified application:

- (1) Return Receipt Postcard;
- (2) This Transmittal Letter (in duplicate 1 page);
- (3) Amendment and Attachments (22 pages);
- (4) Petition for Extension of Time (Two-Month) (1 page);
- (5) Supplemental Information Disclosure Statement (2 pages);
- (6) PTO Form 1449 (1 page); and
- (7) Check for \$1078.00.

No additional fee is required.

The fee has been calculated as shown below:

CLAIMS AS AMENDED

		Claims Remainin	-	Highest No. Previously <u>Paid For</u>		Present Extra		Rate		Addition Fee	al
Total	Claims	46	Minus	20	=	26	x	\$18.00	\$	•	468.00
Indep Claim	endent is	3	Minus	3	=	0	х	\$88.00	\$		0.00
	Fee of depend	for the first fent claims per appl	iling of one or i	nore multiple					\$		
\boxtimes	Fee for	Petition for Extens	ion of Time (Tv	vo-Month)					\$		430.00
	Fee for Supplemental Information Disclosure Statement \$ 180.0									180.00	
Total additional fee for this Amendment:								\$		\$1078.00	
\boxtimes	Conditional Petition for Extension of Time: If an extension of time is required for timely filing of the enclosed document(s) after all papers filed with this transmittal have been considered, an extension of time is hereby requested.										
\boxtimes	Please charge any additional fees required and credit any overpayment to our Deposit Account No. 502664.										

Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents 2.0. Box 1450, Alexandria, VA 22313-1450, on 12

Signature

Respectfully submitted,

asson a Rusk

K. Alison de Runtz Reg: No. 37,119



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

Rush et al.

Title:

Pumping Device, System and Method Employing a Shape Memory

Alloy (As Amended)

Serial No.:

10/683,659

Filed:

October 9, 2003

Examiner:

Timothy P. Solak

Group Art Unit:

3746

Docket No.:

THER.008US1

Conf. No.:

1810

Certificate of Mailing Under 37 CFR 1.8

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Signature

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

AMENDMENT

Sir:

This is in response to an office action that was mailed on July 2, 2004 and set a shortened statutory period for response that expired on October 2, 2004. A request for a two-month extension of time is submitted herewith. In view of the following amendments and remarks, reconsideration is respectfully requested.

AMENDMENT TO THE SPECIFICATION

In the Specification:

Please delete the title on line 1 of page 1 and line 1 of page 21 of the specification and replace it with the replacement title set forth below, which is marked to show the changes being made.

FLUID DELIVERY PUMPING DEVICE, SYSTEM AND METHOD EMPLOYING A SHAPE MEMORY ALLOY

Please delete line 2 of page 1 of the specification and replace it with the replacement text set forth below, which is marked to show the changes being made.

Inventors: Benjamin M. Rush and Christopher V. Reggiardo

Please delete paragraph [0001] on page 1 of the specification and replace it with the replacement paragraph set forth below, which is marked to show the changes being made.

[0001] This non-provisional application is related to and claims priority based on U.S. Provisional Application No. 60/417,464, entitled "Disposable Pump For Drug Delivery System," filed on October 9, 2002, and U.S. Provisional Application No. 60/424,613, entitled "Disposable Pump And Actuation Circuit For Drug Delivery System," filed on November 6, 2002, and U.S. Provisional Application No. 60/424,414, entitled "Automatic Biological Analyte Testing Meter With Integrated Lancing Device And Methods Of Use," filed November 6, 2002, each of which is incorporated herein in its entirety by this reference. This non-provisional application is also related to U.S. Provisional Application No. 60/424,414, entitled "Automatic Biological Analyte Testing Meter With Integrated Lancing Device And Methods Of Use," filed November 6, 2002, and U.S. Patent No. 6,560,471, entitled "Analyte Monitoring Device and Methods of Use," issued May 6, 2003, each of which is incorporated herein in its entirety by this reference.

THER.008US1

Application No.: 10/683,659



REMARKS

The Examiner's indication that all of the items listed on Form PTO-1449 of the Information Disclosure Statement of April 27, 2004 have been considered is acknowledged and much appreciated.

The Examiner objected to Figures 1A, 2A, and 7, a portion of paragraph [0045] of the specification, and the title set forth in the specification. It is believed that the amendments and remarks herein regarding Figures 1A, 2A and 7, and associated portions of the specification, paragraph [0045], and the title set forth in the specification, appropriately address the Examiner's objections. Other amendments to the Figures and the specification are also remarked upon below.

The Examiner objected to the title set forth in the specification. The specification has been amended to replace the title with a new title, which is believed appropriate in that the claims are directed to a pumping device or system (see new Claims 11-48) and a method of pumping (see new Claims 49-51 and new Claims 52-56), each of which employs a shape memory alloy.

The specification has been amended to replace text concerning the inventors with text that reflects the middle initial of one of the inventors.

The specification has been amended in paragraph [0001] to reflect a claim of priority to only two provisional applications. The reference to a third provisional application and its incorporation by reference is maintained, but this third provisional application is not a basis for the claim of priority. No new matter has been added by virtue of this amendment.

The specification has additionally been amended in paragraph [0008] to correct an obvious typographical oversight. No new matter has been added by virtue of this amendment.

The specification has been amended in paragraph [0037] to refer to reference numbers for the cylindrical bore and the piston discussed in paragraph [0037] and shown in Figure 2A, as is consistent with the replacement Figure 2A, as further discussed herein. No new matter has been added by virtue of this amendment.

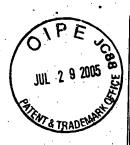
The specification has additionally been amended in paragraph [0045] to correct various oversights concerning the reference numbers that originally appeared in that paragraph.

The specification has been further amended in paragraph [0047] to refer to the remainder of the first alternative embodiment of the invention, as shown in Figure 7. As

THER.008US1

Application

Application No.: 10/683,659



It is believed that all of the objections to the drawings and to the specification have been appropriately addressed.

The claims have been amended to cancel original Claims 1-10 and add new Claims 11-56, which are directed to subject matter that Applicants regard as their invention. No new matter has been added by virtue of these amendments.

Former Claims 1, 2, 4, 5 and 7 were rejected under 35 U.S.C. 102(b), as allegedly being anticipated by U.S. Patent No. 5,62.482 to Lee (hereinafter, "Lee"). Former Claim 8 was rejected under 35 U.S.C. 102(b), as allegedly being anticipated by U.S. Patent No. 6,085,871 to Karamata (hereinafter, "Karamata"). Former Claims 9 and 10 were rejected under 35 U.S.C. 102(b), as allegedly being anticipated by Lee. Former Claims 3 and 6 were rejected under 35 U.S.C. 103(a), as allegedly being unpatentable over Lee. Each of the foregoing rejection is moot in view of the cancellation of the former claims. In view of the mootness of the above-mentioned rejections, no comments on any of same or any statement in support of same are necessary or provided herein.

New Claims 11-56 are believed to be patentable over each of Lee and Karamata. Each of Lee and Karamata fails to teach or suggest a device for pumping a predetermined volume of fluid that comprises a combination of elements as recited in new Claims 11-48, and fails to teach or suggest a method of pumping a predetermined volume of fluid that comprises a combination of elements as recited in new Claims 49-51 and 52-56.

CONCLUSION

Claims 11-56 define novel and non-obvious subject matter of the present invention. Therefore, an early notification that the application is in condition for allowance is earnestly solicited.

Respectfully submitted,

K. Alison de Runtz

Reg. No.: 37,119

PARSONS HSUE & DE RUNTZ LLP 655 Montgomery Street, Suite 1800 San Francisco, CA 94111 (415) 318-1160

(415) 693-0194 (Fax)

THER.008US1

Application No.: 10/683,659

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 6,916,159 B2

ISSUE DATE

: July 12, 2005

INVENTOR(S)

: Rush et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Front page, under the heading "Related U.S. Application Data," please delete the phrase "provisional application No. 60/424,414, filed on Nov. 6, 2002,".

MAILING ADDRESS OF SENDER:

K. Alison de Runtz PARSONS HSUE & DE RUNTZ LLP 655 Montgomery Street, Suite 1800 San Francisco, California 94111 PATENT NO. 6,916,159 B2

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent o the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 and select option 2.